

Abstract

Systems and methods for automatically powering and communicating with an implantable medical device through an inductive link are disclosed. A preferred embodiment comprises an inductive coil or set of such coils. One coil may be mounted
5 or installed on or near the bed of a patient as a component of a transmission module. Another coil may be a component of an implantable medical device. The coils are energized by a resonant circuit to generate an electromagnetic field in the vicinity of the bedside. Without any action on the patient's part, the implantable device receives the inductively transmitted energy to power its immediate operation or recharge its battery,
10 thereby extending its longevity, potentially indefinitely. The inductive link also enables data transfer communication between the transmission module and implantable device. Some embodiments of a system disclosed herein also can be configured as a component of an Advanced Patient Management System that helps better monitor, predict and manage chronic diseases.